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## OM protein - protein search, using sw model

Run on: August 31, 2002, 14:50:29 ; Search time 15.94 Seconds  
(without alignments)  
678.829 Million cell updates/sec

Title: US-09-555-093-2  
Perfect score: 2410  
Sequence: 1 MYVDKNASGLRMKVDRKMLY.....YAMNLOOLKNMAEHQAKAA 443

Scoring table:  
BIOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 231628 seqs, 24425594 residues

Total number of hits satisfying chosen parameters: 231628

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued\_Patents\_AA:\*  
1: /cgn2\_6/ptodata/2/1aa/5A.COMB.pep:\*  
2: /cgn2\_6/ptodata/2/1aa/5B.COMB.pep:\*  
3: /cgn2\_6/ptodata/2/1aa/6A.COMB.pep:\*  
4: /cgn2\_6/ptodata/2/1aa/6B.COMB.pep:\*  
5: /cgn2\_6/ptodata/2/1aa/PT05.COMB.pep:\*  
6: /cgn2\_6/ptodata/2/1aa/backfill1es1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	557	23.1	457	2	US-08-834-655-2
2	557	23.1	457	3	US-08-834-033A-2
3	557	23.1	457	4	US-09-363-574-2
4	555	23.0	457	2	US-08-833-610-4
5	555	23.0	457	3	US-08-834-033A-14
6	501	20.8	355	2	US-08-834-655-5
7	501	20.8	355	3	US-08-834-033A-6
8	501	20.8	355	4	US-09-363-574-5
9	456.5	18.9	446	2	US-08-833-610-5
10	456.5	18.9	446	3	US-08-834-033A-15
11	448.5	18.6	448	1	US-08-366-779-5
12	448.5	18.6	448	1	US-08-789-936-5
13	448.5	18.6	448	1	US-08-934-254-5
14	412	17.1	87	2	US-08-834-655-10
15	412	17.1	87	3	US-08-834-033A-11
16	412	17.1	87	4	US-09-363-574-10
17	400	16.6	452	4	US-08-934-254-27
18	259.5	10.8	252	2	US-08-834-655-7
19	259.5	10.8	252	3	US-08-834-033A-8
20	259.5	10.8	252	4	US-09-363-574-7
21	217	9.0	365	3	US-08-833-610-7
22	217	9.0	365	3	US-08-834-033A-17
23	215.5	8.9	359	1	US-08-307-382-2
24	215.5	8.9	359	1	US-08-366-779-2
25	215.5	8.9	359	1	US-08-478-727-2
26	215.5	8.9	359	1	US-08-473-508-2
27	215.5	8.9	359	1	US-08-789-936-2

28	215.5	8.9	359	2	US-08-833-610-6	Sequence 6, Appl1
29	215.5	8.9	359	3	US-08-834-033A-16	Sequence 16, Appl1
30	215.5	8.9	359	4	US-08-934-254-2	Sequence 2, Appl1
31	186	7.7	446	2	US-08-833-610-2	Sequence 2, Appl1
32	186	7.7	446	3	US-08-834-033A-5	Sequence 5, Appl1
33	174.5	7.2	443	4	US-09-161-994A-3	Sequence 3, Appl1
34	166	6.9	143	3	US-08-834-655-11	Sequence 12, Appl1
35	166	6.9	143	3	US-08-834-033A-12	Sequence 11, Appl1
36	166	6.9	143	4	US-09-363-574-11	Sequence 11, Appl1
37	164.5	6.8	418	5	PCR-US94-01321-72	Sequence 72, Appl1
38	161	6.7	131	2	US-08-834-655-9	Sequence 9, Appl1
39	161	6.7	131	3	US-08-834-033A-10	Sequence 10, Appl1
40	161	6.7	131	4	US-09-363-574-9	Sequence 9, Appl1
41	149	6.2	125	2	US-08-834-655-8	Sequence 8, Appl1
42	149	6.2	125	3	US-08-834-033A-9	Sequence 9, Appl1
43	149	6.2	125	4	US-09-363-574-8	Sequence 8, Appl1
44	148	6.1	424	4	US-09-161-994A-4	Sequence 4, Appl1
45	141.5	5.9	384	4	US-09-354-231B-18	Sequence 18, Appl1

## ALIGNMENTS

RESULT 1  
US-08-834-655-2  
; Sequence 2, Application US/08834655  
; Patent No. 5968809  
; GENERAL INFORMATION:  
; APPLICANT: KURTZON, DEBORAH  
; APPLICANT: MURKERJI, PRADIP  
; APPLICANT: HUANG, YUNG-SHENG  
; APPLICANT: THURMOND, JENNIFER  
; APPLICANT: CHAUDHARY, SUNITA  
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS  
; TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS  
; NUMBER OF SEQUENCES: 18  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: RAE-VENTER LAW GROUP, P.C.  
; STREET: 260 SHERIDAN AVENUE, P.O. BOX 60039  
; CITY: PALO ALTO  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 94306  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.30  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/834,655  
; FILING DATE: 11-APR-1997  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; NAME: RAE-VENTER, BARBARA  
; REGISTRATION NUMBER: 32,750  
; REFERENCE/DOCKET NUMBER: CGNE.124.000S  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (650) 328-4400  
; TELEFAX: (650) 328-4477  
; TELEX: N/A  
; INFORMATION FOR SEQ ID NO: 2:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 457 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: not relevant  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
; US-08-834-655-2  
Query Match 23.1%; Score 557; DB 2; Length 457;  
Best Local Similarity 32.1%; Pred. No. 7.6e-47;  
Matches 143; Conservative 64; Mismatches 187; Indels 52; Gaps 11;

[illegible]

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;      LENGTH: 457 amino acids
;      TYPE: amino acid
;      STRANDEDNESS: not relevant
;      TOPOLOGY: linear
;      MOLECULE TYPE: peptide
US-08-834-033A-2

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Query Match	23.1%;	Score 557;	DB 3;	Length 457;
Best Local Similarity	32.1%;	Pred. No. 7.6e-47;		
Matches 143;	Conservative 64;	Mismatches 187;	Indels 52;	Gaps 11;

[illegible]

1 REGISTRATION NUMBER: 38,651  
2 REFERENCE/DOCKET NUMBER: CGAB-300, USA  
3 TELECOMMUNICATION INFORMATION:  
4 TELEPHONE: (415) 433-4150  
5 TELEFAX: (415) 433-8716  
6 TELEX: N/A  
7 INFORMATION FOR SQO ID NO: 2:  
8 SEQUENCE CHARACTERISTICS:

CLASSIFICATION:  
ATTORNEY/AGENT INFORMATION:  
NAME: WARD, MICHAEL R.  
REGISTRATION NUMBER: 38,651  
REFERENCE/DOCKET NUMBER: CGAB-202 USA  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 433-4150  
TELEFAX: (415) 433-8716  
TELEX: N/A  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 457 amino acids  
TYPE: amino acid  
STRANDEDNESS: not relevant  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
US-09-363-574-2

Query Match 23.1%; Score 557; DB 4; Length 457;  
Best Local Similarity 32.1%; Pred. No. 7.6e-47;  
Matches 143; Conservative 64; Mismatches 187; Indels 52; Gaps 11;

- QY 12 MKVDGKMLYSEELVKKHKGAVIEQYNSDATIHFAHEGSSQAYKQDLKKHGEHD 71  
DB 34 MIIDNK-VYDVREFEVDHGGSVILTHVGKDGTDVDFTHPEAAW----- 77  
QY 72 EFLKQLEKRLKVDINVAIDYVAQEKWVESFEKLKQKLHDSGLMANKETFLFKAI 131  
DB 78 EFLANFYVDGIDESDDIKNDFA-AEVRKRLTLFQSL-----GYDSSKAYYAFKVS 129  
QY 132 STLSIMAFAYLOYLGM-----YITSACLALAMQCFGLTHERCHOQPKRNPRLNT 184  
DB 130 FNLCTMGSLTVI-VAKMGSTLANVLSAALLGLFWQCGGWLANDHLHNOVQDRWGL 188  
QY 185 ISLFGNVLQGFSSRDWKKDKHTNHAATNVIDHGDIDLAPL-----FAFLPG-D 233  
DB 189 FGAFLGVCQGFSSSWKKDKHTNHAAPVHVEDPDIDHPLTLTWSHALLEMSDVPDEE 248  
QY 234 LCKYKASEFKALKIVPYOHLVFTAMLPLRFSGTGSQVWFKEMQMEKYQR--NAF 291  
DB 249 LTRMMSRF-----MYLNDTWTFYFPLISPARLSWCLOSLFVLPNGQAKRPGARVPISL 302  
QY 292 WEQATVGHMAWVYQFLPTWPLR-VAYFTISQMGGLLAHYVTFNHSVDKXPANS 350  
DB 303 VQQLSLAHMTWYLAFTMFLFKIDPVNMLYFLVSAQVCGNLAIYVSLHNGMPYISKDE 362  
QY 351 RLINNFALQILITRNMPSPRIDWLGSLNTOIEHNLFPTRPCNLACVYKWKCE 410  
DB 363 AVDMQFETKQITGRDVHGLFANMFTGGLNYOIEHNLFPSPMRHNSKIOPAVETLCK 422  
QY 411 NNLPTLVDDYDPGYAMNLQOLKNMAE 436  
DB 423 YVVRHTTGMIGTAEVFSRLNEVSK 448

RESULT 4  
US-08-833-610-4  
Sequence 4, Application US/08833610  
Patent No. 5972664  
GENERAL INFORMATION:  
APPLICANT: KNUZON, DEBORAH  
APPLICANT: MURKERT, PRADIP  
APPLICANT: HUANG, YUNG-SHENG  
APPLICANT: THURMOND, JENNIFER  
APPLICANT: CHAUDHARY, SUNITA  
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS  
TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS  
NUMBER OF SEQUENCES: 12  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: RAE-VENTER LAW GROUP, P.C.  
STREET: 260 SHERIDAN AVE, P.O. BOX 60039  
CITY: PALO ALTO

STATE: CALIFORNIA  
COUNTRY: USA  
ZIP: 94306  
COMPUTER READABLE FORM:  
MEDIUM TYPE: floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/833,610  
FILING DATE: 11-APR-1997  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: RAE-VENTER, BARBARA  
REGISTRATION NUMBER: 32,750  
REFERENCE/DOCKET NUMBER: CGNE.123.0005  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (650)328-4400  
TELEFAX: (650)328-4477  
TELEX: N/A  
INFORMATION FOR SEQ ID NO: 4:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 457 amino acids  
TYPE: amino acid  
STRANDEDNESS: not relevant  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
US-08-833-610-4

Query Match 23.0%; Score 555; DB 2; Length 457;  
Best Local Similarity 32.1%; Pred. No. 1.2e-46;  
Matches 143; Conservative 64; Mismatches 187; Indels 52; Gaps 11;

QY 12 MKVDGKMLYSEELVKKHKGAVIEQYNSDATIHFAHEGSSQAYKQDLKKHGEHD 71  
DB 34 MIIDNK-VYDVREFEVDHGGSVILTHVGKDGTDVDFTHPEAAW----- 77  
QY 72 EFLKQLEKRLKVDINVAIDYVAQEKWVESFEKLKQKLHDSGLMANKETFLFKAI 131  
DB 78 EFLANFYVDGIDESDDIKNDFA-AEVRKRLTLFQSL-----GYDSSKAYYAFKVS 129  
QY 132 STLSIMAFAYLOYLGM-----YITSACLALAMQCFGLTHERCHOQPKRNPRLNT 184  
DB 130 FNLCTMGSLTVI-VAKMGSTLANVLSAALLGLFWQCGGWLANDHLHNOVQDRWGL 188  
QY 185 ISLFGNVLQGFSSRDWKKDKHTNHAATNVIDHGDIDLAPL-----FAFLPG-D 233  
DB 189 FGAFLGVCQGFSSSWKKDKHTNHAAPVHVEDPDIDHPLTLTWSHALLEMSDVPDEE 248  
QY 234 LCKYKASEFKALKIVPYOHLVFTAMLPLRFSGTGSQVWFKEMQMEKYQR--NAF 291  
DB 249 LTRMMSRF-----MYLNDTWTFYFPLISPARLSWCLOSLFVLPNGQAKRPGARVPISL 302  
QY 292 WEQATVGHMAWVYQFLPTWPLR-VAYFTISQMGGLLAHYVTFNHSVDKXPANS 350  
DB 303 VQQLSLAHMTWYLAFTMFLFKIDPVNMLYFLVSAQVCGNLAIYVSLHNGMPYISKDE 362  
QY 351 RLINNFALQILITRNMPSPRIDWLGSLNTOIEHNLFPTRPCNLACVYKWKCE 410  
DB 363 AVDMQFETKQITGRDVHGLFANMFTGGLNYOIEHNLFPSPMRHNSKIOPAVETLCK 422  
QY 411 NNLPTLVDDYDPGYAMNLQOLKNMAE 436  
DB 423 YVVRHTTGMIGTAEVFSRLNEVSK 448

RESULT 5  
US-08-834-033A-14  
Sequence 14, Application US/08834033A  
Patent No. 6075183  
GENERAL INFORMATION:  
APPLICANT: KNUZON, DEBORAH



DB 237 VCGNLAIATVPSLNHNGMPVYSKEEAVDMDFETKQILITGRDVGHLGFLANNFTGGLNTOIEH 296  
QY 387 HLEPTMPCNLACVYKWEKCKENNLPLYLVDDYFGYAMNLOQLKNMAE 436  
DB 297 HLEPSMRPRNFESKIOPAVETLCKKYVRYHTTGMEGTAEVFSRLNEVSK 346

RESULT 7  
US-08-834-033A-6  
; Sequence 6, Application US/08834033A  
; Patent No. 6075183  
; GENERAL INFORMATION:  
; APPLICANT: KNOTZON, DEBORAH  
; APPLICANT: MUKERJI, PRADIP  
; APPLICANT: HUANG, YUNG-SHENG  
; APPLICANT: THURMOND, JENNIFER  
; APPLICANT: CHAUDHARY, SUNITA  
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS  
; TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS  
; NUMBER OF SEQUENCES: 26  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: LIMBACH AND LIMBACH, L.L.P.  
; STREET: 2001 FERRY BUILDING  
; CITY: SAN FRANCISCO  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 94111  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: WORDPERFECT 5.1  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/834,033A  
; FILING DATE: 11-APR-1997  
; CLASSIFICATION: 800  
; ATTORNEY/AGENT INFORMATION:  
; NAME: WARD, MICHAEL R.  
; REGISTRATION NUMBER: 38,651  
; REFERENCE/DOCKET NUMBER: CGAB-300, USA  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (415) 433-4150  
; TELEFAX: (415) 433-8716  
; TELEX: N/A  
; INFORMATION FOR SEQ ID NO: 6:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 355 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: not relevant  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
; US-08-834-033A-6

Query Match 20.8%; Score 501; DB 3; Length 355;  
Best Local Similarity 34.3%; Pred. No. 1.8e-41;  
Matches 120; Conservative 48; Mismatches 134; Indels 28; Gaps 7;

QY 108 KLRKLIHDDGLMKANETTYLFRAISTLSIMAFYLYQYLGW-----YITSACLIALAM 160  
DB 4 KRLTFQSGYGYDDSSKAYAFVFSNLCIWLGLSTVI-VAKWQOTSTLANVLSAALLGLFW 62  
QY 161 QOFGWLTFFHCQOQPKNPLNDTISLFFGNFLQGFSDRMWKDKNTHHAATNVIDHGD 220  
DB 63 QOCGWLAHDFLHVOYFQDFWGDLEGAFLGYCQCGSSSMWKDKNTHHAAPNVHGEDD 122  
QY 221 IDLAFL-----FAFIPG-DLCKYKASEKALIKIVPYOHLYFTMALPMLRPSWTG 269  
DB 123 IDTHPLLTSEHALEMFSDVPDEBLTRMWSRF-----VVLNQTWYFPILSFARLSWCL 176  
QY 270 QSVOWVFKENOMEYKYVOR-NAFWEOATVGHMAWVVFQLEFLLPWPLR-VAYFTISOM 326

DB 177 QSLFVLPNGOAHKPSGARVPSLVEQLSLAMHMTWYLATMFLFKIDPVNMLYFLVQSA 236  
QY 327 GGGSLIAHVVTFFHNSVDYRPAANSRLNNPALQILFTTNMTPSPIDMLWGLNTOIEH 386  
DB 237 VCGNLAIATVPSLNHNGMPVYSKEEAVDMDFETKQILITGRDVGHLGFLANNFTGGLNTOIEH 296  
QY 387 HLEPTMPCNLACVYKWEKCKENNLPLYLVDDYFGYAMNLOQLKNMAE 436  
DB 297 HLEPSMRPRNFESKIOPAVETLCKKYVRYHTTGMEGTAEVFSRLNEVSK 346

RESULT 8  
US-09-363-574-5  
; Sequence 5, Application US/09363574  
; Patent No. 6136574  
; GENERAL INFORMATION:  
; APPLICANT: KNOTZON, DEBORAH  
; APPLICANT: MUKERJI, PRADIP  
; APPLICANT: HUANG, YUNG-SHENG  
; APPLICANT: THURMOND, JENNIFER  
; APPLICANT: CHAUDHARY, SUNITA  
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS  
; TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS  
; NUMBER OF SEQUENCES: 18  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: LIMBACH AND LIMBACH L.L.P.  
; STREET: 2001 FERRY BUILDING  
; CITY: SAN FRANCISCO  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 94111  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.30  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/363,574  
; FILING DATE:  
; CLASSIFICATION:  
; ATTORNEY/AGENT INFORMATION:  
; NAME: WARD, MICHAEL R.  
; REGISTRATION NUMBER: 38,651  
; REFERENCE/DOCKET NUMBER: CGAB-202 USA  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (415) 433-4150  
; TELEFAX: (415) 433-8716  
; TELEX: N/A  
; INFORMATION FOR SEQ ID NO: 5:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 355 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: not relevant  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
; US-09-363-574-5

Query Match 20.8%; Score 501; DB 4; Length 355;  
Best Local Similarity 34.3%; Pred. No. 1.8e-41;  
Matches 120; Conservative 48; Mismatches 154; Indels 28; Gaps 7;

QY 108 KLRKLIHDDGLMKANETTYLFRAISTLSIMAFYLYQYLGW-----YITSACLIALAM 160  
DB 4 KRLTFQSGYGYDDSSKAYAFVFSNLCIWLGLSTVI-VAKWQOTSTLANVLSAALLGLFW 62  
QY 161 QOFGWLTFFHCQOQPKNPLNDTISLFFGNFLQGFSDRMWKDKNTHHAATNVIDHGD 220  
DB 63 QOCGWLAHDFLHVOYFQDFWGDLEGAFLGYCQCGSSSMWKDKNTHHAAPNVHGEDD 122  
QY 221 IDLAFL-----FAFIPG-DLCKYKASEKALIKIVPYOHLYFTMALPMLRPSWTG 269  
DB 123 IDTHPLLTSEHALEMFSDVPDEBLTRMWSRF-----VVLNQTWYFPILSFARLSWCL 176

QY 270 OSVQWKEKEMEXKYOR--NAFWQATVGHMAWVYOLLPPTWLR-VAYFIISOM 326  
Db 177 OSILFVLPGCAHKEPGARVPSILVEQLSLAMHTWLTATWFLTKDPVNNLYEFLVSOA 236  
QY 327 GGGILLIAHYVTFNNNSVDKTPANSRIILNFRALLOILTTRNNTPSPFDIMLGINTOIEH 386  
Db 237 VCGLLAIVESLNNHNGNVPVSKERAVMDPFTKQIITGRDHPGLFANWFTGGLNTIOIEH 296  
QY 387 HLFPTMPCNLNACVKKYKEMCKENNLPLYVDVDFGAYAMNLOOLKNMAE 436  
Db 297 HLFPSMRHNFSKIQPAVEITLCKYINVRHTTGIEGTAEVFSRLNEYSK 346

RESULT 9  
US-08-833-610-5  
; Sequence 5, Application US/08833610  
; Patent No. 5972664  
; GENERAL INFORMATION:  
; APPLICANT: KNOTZON, DEBORAH  
; APPLICANT: MURKERTJ, PRADIP  
; APPLICANT: HUANG, YUNG-SHENG  
; APPLICANT: THURMOND, JENNIFER  
; APPLICANT: CHAUDHARY, SUNITA  
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS  
; TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS  
; NUMBER OF SEQUENCES: 12  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: RAE-VENTER LAW GROUP, P.C.  
; STREET: 260 SHERIDAN AVE, P.O. BOX 60039  
; CITY: PALO ALTO  
; STATE: CALIFORNIA  
; COUNTRY: USA  
; ZIP: 94306  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patentin Release #1.0, Version #1.30  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/833,610  
; FILING DATE: 11-APR-1997  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; NAME: RAE-VENTER, BARBARA  
; REGISTRATION NUMBER: 32,750  
; REFERENCE/DOCKET NUMBER: CGNE.123.00US  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (650)328-4400  
; TELEFAX: (650)328-4477  
; TELEX: N/A  
; INFORMATION FOR SEQ ID NO: 5:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 446 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: not relevant  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
; US-08-833-610-5

Query Match 18.9%; Score 456.5; DB 2; Length 446;  
Best Local Similarity 28.0%; Pred. No. 6.5e-37;  
Matches 127; Conservative 70; Mismatches 189; Indels 67; Gaps 14;

QY 10 LRRKVDCKWLYLSEPLTKKHGGAV-TEQYRNSDATHIFAFHFGSSQAVKQDLDLKKHG 68  
Db 23 LMTISIOCK-AYDVSOWYKDHFGSFFPLKSLAGQEVTDFAVAFHASTW----- 69  
QY 69 EHDEFLEKLEKRLKVDIVNSAVDVSVAOEKKVNES--FEKLRQKLHDDGLMKANETVF 126  
Db 70 -----KNLDRKFTGYTLKDYVSSEVSKYRKLVEFESKMGLYD-----KKGHI 112

QY 127 LFKASTLSIMAFVYLOYG-----WYTSACLIATAMQFGMLTHEFCHQOPTKN 178  
Db 113 MF---ATLCFTAMLFAMSVSYGLFCFEGVLVLFSGCLMGFLMIOSGIMIGHDAGHYAVVSD 169  
QY 179 RPLNDTISLFGNFILOGFSRDMKDKNTHHAATNNVIDHODDIDLAP-----LFAFIP 231  
Db 170 SRLKFMGIFAFANCLSGISIGMMKNHNAHHIACNSLEYDDLOYIPPLVYSSKFFSLT 229  
QY 232 GDLCRYKASFKAALKITVYPOHLFTAMLPMLRSWTSQSVQWKEKEMEXKYORNAF 291  
Db 230 SHEYKRLFTPSLSRFYSVOHMTFFIPMCARLMTVYOSLIMLTTRNYSRAQE----- 285  
QY 292 WEQATVGHMAW-VFYOLF--LPTWPLRAVYFIISONGGLLIAHYVTENNNSVDKYP 348  
Db 286 ----LLGLVFSIYMDLVSLCPNMGERTIMFVIASLSVTGMQVQ--FSLNHFSSSYVG 339  
QY 349 NSRLTNPFALLOILTTRNNTPSPFDIMLGINTOIEHHLFPTMPCNLNACVKKYKEMC 408  
Db 340 KPK-GNNWFEKQTDGTLIDISCPWMDMFHGLQFOIEHHLFPKMPRCNLKRISFYIELC 398  
QY 409 KENNLPLYVDVDFGAYAMNLOOLKNMAEHIOAK 441  
Db 399 KKNLPLYNVASFASKANEMTLRTLRNTA--LQAR 429

RESULT 10  
US-08-834-033A-15  
; Sequence 15, Application US/08834033A  
; Patent No. 6075183  
; GENERAL INFORMATION:  
; APPLICANT: KNOTZON, DEBORAH  
; APPLICANT: MURKERTJ, PRADIP  
; APPLICANT: HUANG, YUNG-SHENG  
; APPLICANT: THURMOND, JENNIFER  
; APPLICANT: CHAUDHARY, SUNITA  
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS  
; TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS  
; NUMBER OF SEQUENCES: 26  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: LIMBACH AND LIMBACH, L.L.P.  
; STREET: 2001 FERRY BUILDING  
; CITY: SAN FRANCISCO  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 94111  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: WORDPERFECT 5.1  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/834,033A  
; FILING DATE: 11-APR-1997  
; CLASSIFICATION: 800  
; ATTORNEY/AGENT INFORMATION:  
; NAME: WARD, MICHAEL R.  
; REGISTRATION NUMBER: 38,651  
; REFERENCE/DOCKET NUMBER: CGAB-300.USA  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (415) 433-4150  
; TELEFAX: (415) 433-8716  
; TELEX: N/A  
; INFORMATION FOR SEQ ID NO: 15:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 446 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: not relevant  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
; US-08-834-033A-15

Query Match 18.9%; Score 456.5; DB 3; Length 446;

```

; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
;   LENGTH: 448 amino acids
;   TYPE: amino acid
;   TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-366-779-5

Query Match      18.6%; Score 448.5; DB 1; Length 448;
Best Local Similarity 27.9%; Pred. No. 4e-36;
Matches 127; Conservative 71; Mismatches 186; Indels 71; Gaps 15;

QY    10 LRMKVDGKMVLYLSEELYKKHPCGAV-IEQYRNSDATHTIIFNAHEGSSOATKQDLCLKKHG 68
Db     23 LMTISIQCK-AVDYSVMWKDHPGSGFPLIKSLAGQEVTDFAFAFHASTW----- 69
QY     69 EHDEFELEKOLEKRDKXDYNASAYDVAAQ----EKNMVESEFKLRQLHDGLMKANET 124
Db     70 -----KNIDKEFFFTGYLLKYDVSVEYSVKDYRKLVFEFSKM--GLYD-----KG 110
QY    125 YLFELKAISTLSIMAFAYLYOLYG-----WTTSACLLALAQOFGWITHEFCHOOPT 176
Db     111 HIME---ATLCFLTAMLFAMSVGYLPCEGYVLNHFSCIGMLFIQSWMIGHDAGHIMV 167
QY    177 KNRPLNDTJSLFEGNLQGSFRDWKKDKHNTHAATNVIDHGDIDLAP-----LPAF 229
Db     168 SDSRLNFEMGIIFANCLSGISIGWKKNNHANHAICNSLEYDPDIQYIPFLVSSKPFGS 227
QY    230 IPGDLCKYKKSFEKAILKIYPHQYLPTAMIRPMREWGTSQSYGVWVKEKOMEKVYQRN 289
Db     228 LTSHFYEKRLPFLPSLSRFPSYQHWPTEYPLMCAARLMNYVOSLIIMLTTRNVSTRAOE-- 285
QY    290 AFWEQATIVGHMAW-VYQOLF--LPMPPLRAYFIISOMGGGLIAHVTFPNINSVDKY 346
Db     286 -----LLCGLPVSIYPRILVYSLCPMWGERIMVIALSVYTGQQOYQ-FSLNHFFSSVY 337
QY    347 PANSRLINPALAOILITRRMTSPFIDWLMGILNYOIEHHLEPPTMRCLNACVAKYE 406
Db     338 VGKPK-GNMNFEEKQTDTLDISCPRMMDWHNGSQQFQIEHHLRPKMRCLNKISPVI 396
QY    407 WCKENNLPLYLVDFEDGYAMNLOOLKMAHEIOAK 441
Db     397 LCKKHNLPLYVASFSKANEMTLRTLRNTA--LQAR 429

RESULT 12
US-08-789-936-5
; Sequence 5, Application US/08789936
; Patent No. 5789220
GENERAL INFORMATION:
APPLICANT: Thomas, Terry L.
APPLICANT: Reddy, Avutu S.
APPLICANT: Nuccio, Michael
APPLICANT: Freysinet, Georges L.
APPLICANT: Nunberg, Andrew N.
TITLE OF INVENTION: PRODUCTION OF GAMMA LINOLENIC ACID BY A
NUMBER OF SEQUENCES: 25
CORRESPONDENCE ADDRESS:
ADDRESSEE: Scully, Scott, Murphy & Presser
STREET: 400 Garden City Plaza
City: Garden City
STATE: New York
COUNTRY: United States
ZIP: 11530
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/789,936

```

```

1      CLING DATE: 28-JAN-1997
2
3      CLASSIFICATION: 435
4
5      PRIOR APPLICATION DATA:
6
7      APPLICATION NUMBER: 08/366,779
8
9      FILING DATE: 30-DEC-1994
10
11     ATTORNEY/AGENT INFORMATION:
12
13     NAME: Presser, Leopold
14
15     REGISTRATION NUMBER: 19,827
16
17     REFERENCE/DOCKET NUMBER: 83832YXX
18
19     TELECOMMUNICATION INFORMATION:
20
21     TELEPHONE: (516) 742-4343
22
23     TELEFAX: (516) 742-4366
24
25     TELEX: 230 901 SANS UR
26
27     INFORMATION FOR SEQ ID NO: 5:
28
29     SEQUENCE CHARACTERISTICS:
30
31     LENGTH: 448 amino acids
32
33     TYPE: amino acid
34
35     TOPOLOGY: linear
36
37     MOLECULE TYPE:
38
39     US-08-789-936-5

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Query Match	18.6%	Score 448.5	DB 1,	length 448;
Best Local Similarity	27.9%	Pred. No. 4e-36;		
Matches 127; Conservative	71;	Mismatches 186;	Indels 71;	Gaps 15

QY	10	LPMVDGKMWLSELELVKKHGGAV--IEQYNSGATNPHAFHGGSSOAVKQDULKKHG	68
Db	23	LMISIQGK-AVDVDMWKDHHGGSFPLKSLAGOEYTDFAFAFHASTV-----	69
QY	69	EHDEFLKQLEKRLDKVDYNSAIVDSVAQ---EKKVESFEKRLKDHGGIMKANET	124
Db	70	-----KNDKFEFTGYLLKDYSSVEYSKDYRKLVFEFSKM--GLYD-----KKG	110
QY	125	YELFKAIISTLSIMAFELQYLG-----WYTSCLIALAMQOFGYLTHEHCQOPT	176
Db	111	HIMF---ATLCFTIMLRMSYGYGLFEGEYVHLIFSGLMGFWLIGSGMIGHDGHYVV	167
QY	177	KNRPLNDTISLFFGNFLOGFSRDWKKDKNHTNHAATVNDHGGIDILAF-----LFAF	229
Db	168	SDSRINKFMGFIANCLSGISIGWMKNHNHNHAIACNSLEYDPLQYIPFLVSSKFFGS	227
QY	230	IPGDLCKYKASFEEKAILKIYVQYQYLLTYTAMLPILRFSGTSGSYGVWVKKENOMEKVYQRN	285
Db	228	LTSHFYEKRLFEDLSRFEPYSYQHWTEYRPLICCAARLNNYVQSLMLLTKRNVSRABE--	285
QY	290	AFMEQATIVGHMAW-VFYQFL--LPMPRLVAFYFIISOMGGGLIAHYVFNFNNSVDKY	346
Db	286	-----LLGLGVESIWYPLVLSCLPMMGEKIMVIAVLSVYTGQOYQ-FSLNHFFSSVY	337
QY	347	PANSRIINNEFAQLILTTNNMTPSPFLIDWLMGSLNYQIEHHILFPTMRCMLNACVYKKE	406
Db	338	VGKER-GNNWEKQTDGTDLIDISCPMMDMWFHGSGQFOIEHHILFKPMRCMLKISPYIE	396
QY	407	WCKENNLPLYLVDDYFDGYAMNLOOLKMAHEIQAK	441
Db	397	LCKKHNLPLYNVAFSKANEMLRLRTAFA--LQAR	429

RESULT 13  
US-08-934-254-5  
? Sequence 5, Application US/08934254  
? Patent No. 635861  
? GENERAL INFORMATION:  
? APPLICANT: Thomas, Terry L.  
? TITLE OF INVENTION: PRODUCTION OF GAMMA LINOLENIC ACID BY A  
? TITLE OF INVENTION: DELTA 6-DESATURASE  
? NUMBER OF SEQUENCES: 27  
? CORRESPONDENCE ADDRESS:  
? ADDRESSEE: Scully, Scott, Murphy & Presser  
? STREET: 400 Garden City Plaza  
? CITY: Garden City  
? STATE: New York

```

COUNTRY: United States
ZIP: 11530
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/934,254
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Presser, Leopold
REGISTRATION NUMBER: 19,827
REFERENCE/DOCKET NUMBER: 83832YXWVU
TELECOMMUNICATION INFORMATION:
TELEPHONE: (516) 742-4343
TELEFAX: (516) 742-4366
TELEX: 230 901 SANS UR
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 448 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: Protein
US-08-934-254-5

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	18.6%	Score 448.5	DB 4	Length 448
Query Match	27.9%	Pred. No. 46-36		
Best Local Similarity	71	Mismatches 186	Indels 71	Gaps 15
Matches 127				

QY	10	LRMVDDKQWTLYLSSELTGKKHGGVANEQYRNSPATCIIHFAHFGSSQAAKQDLDLKKH	68
Db	23	LMISIOGK-AVYDSWMKDHGGSFPLKSLAGOEYDAFAHFPASTW	69
QY	69	EHDEFELEKQERLKDYDINVAYDSVAO---EKKMVESEFKLROKLDHDLGMANET	124
Db	70	-----KNLDKEFFQGYLLKDYVSVEYSKDYRLVAEFSKSM--GLYD	110
QY	125	YELFKATISTLSIMAFAYLYOIG-----WYTSACLALAMQOFGWLTJHECHOPT	176
Db	111	HIMF---ATTCETIMLFAMSYGYVLFEQYVHLFFSCSLGFLMIOSGMIGHAGHMYV	167
QY	177	KNRLPNDTISLFEQNPLOGEFRDWMKDNHTNHAATNVIDHDDIDLAP-----LFAF	229
Db	168	SDSRLNKFMGFIANCLSGISIGMKNVNHANHACLSLEYDDQLQIPELVYSSKFFGS	227
QY	230	IPGDLCKYKASFEEKAILIKYPRQYUHLTYALMRYHRSWTSQOVSQWVPEKQEMQYKQVRN	289
Db	228	LTSHFYKRLRTFBSLSRFVSYOHMTFYRPLMCARLMMYQOSLMLTLTKRNVSYRAOE--	285
QY	290	AFWEOATVGHMAW-VFYQYFL--LPTWPLRYAVFIISOMGGILLAHVYTFPHNSVDKY	346
Db	286	-----LLGCLVPSIYRPLLYSCLRPMMGERIMFVILASLSVYGMQOYQ-FSLNHFSSSY	337
QY	347	PANSRLINNEPALQIILTRNMTSPSLIDMLGSLNVOIEHNLPTPRCNLNAQVYKE	406
Db	338	VGKPK-RGNMFKEQTDGTLDISCPRMWDMHNGSQOFIEHNLPRPKMRCMLRKISPYVE	396
QY	407	WCKENNLRYLVLDYDFGQYANLQDKMAHNIQAK	441
Db	397	LCKKHNLPRYVYSSKANETLRLKRNFTA--LDAR	429

RESULT 14  
US-08-834-655-10  
Sequence 10, Application US/088346555  
Patent No. 5968809  
GENERAL INFORMATION:  
APPLICANT: KUNITON, DEBORAH  
APPLICANT: MUKERJI, PRADIP  
APPLICANT: HOANG, YUNG-SHENG



1 APPLICANT: THURMOND, JENNIFER  
2 APPLICANT: CHAUDHARY, SUNITA  
3 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS  
4 TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS  
5 NUMBER OF SEQUENCES: 18  
6 CORRESPONDENCE ADDRESS:  
7 ADDRESSEE: RAE-VENTNER LAW GROUP, P.C.  
8 STREET: 260 SHERIDAN AVENUE, P.O. BOX 60039  
9 CITY: PALO ALTO  
10 STATE: CA  
11 COUNTRY: USA  
12 ZIP: 94306  
13  
14 COMPUTER READABLE FORM:  
15 MEDIUM TYPE: Floppy disk  
16 COMPUTER: IBM PC compatible  
17 OPERATING SYSTEM: PC-DOS/MS-DOS  
18 SOFTWARE: PatentIn Release #1.0, Version #1.30  
19 CURRENT APPLICATION DATA:  
20 APPLICATION NUMBER: US/08/834,655  
21 FILING DATE: 11-APR-1997  
22 CLASSIFICATION: 435  
23 ATTORNEY/AGENT INFORMATION:  
24 NAME: RAE-VENTNER, BARBARA  
25 REGISTRATION NUMBER: 32,750  
26 REFERENCE/DOCKET NUMBER: CGNE.124.00US  
27 TELECOMMUNICATION INFORMATION:  
28 TELEPHONE: (650) 328-4400  
29 TELEFAX: (650) 328-4477  
30 TELEX: N/A  
31 INFORMATION FOR SEQ. ID NO: 10:  
32 SEQUENCE CHARACTERISTICS:  
33 LENGTH: 87 amino acids  
34 TYPE: amino acid  
35 STRANDEDNESS: not relevant  
36 TOPOLOGY: linear  
37 MOLECULE TYPE: peptide  
38  
39 US-08-834-655-10

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Query Match          17.1%; Score 412; DB 2; Length 87;
Best Local Similarity 90.0%; Pred. No. 1.5e-33;
Matches 72; Conservative 3; Mismatches 5; Indels 0; Gaps 0.

QY 364 TRNMTPSPFIDMLWGLNGVQIEHHLEPTMPRCNLNACVYKVEKWKENNLPLYVDYDFDG 423
      |||||
Db 8 TRNMTPSPFIDMLWGLNGVQIEHHLEPTMPRCNLNRCMKYKVEKCAENNLPLYVDYDFVG 67
      |||||

QY 424 YAMNLDQKNAEAHIQAKA 443
      |:|||||:||||
Db 68 YNLNLDQKNAEAELVQAKA 87

RESULT 15
US-08-834-033A-11
; Sequence 11, Application US/08834033A
; Patent No. 6075183
; GENERAL INFORMATION:
; APPLICANT: KNUTZON, DEBORAH
; APPLICANT: MUKERJI, PRADIP
; APPLICANT: HUANG, YUNG-SHENG
; APPLICANT: THURMOND, JENNIFER
; APPLICANT: CHAUDHARY, SUNITA
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
; TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: LIMBACH AND LIMBACH, L.L.P.
; STREET: 2001 FERRY BUILDING
; CITY: SAN FRANCISCO
; STATE: CA
; COUNTRY: USA
; ZIP: 94111
; COMPUTER READABLE FORM:
;

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1 MEDIUM TYPE: Floppy disk
2 COMPUTER: IBM PC compatible
3 OPERATING SYSTEM: PC-DOS/MS-DOS
4 SOFTWARE: WORDPERFECT 5.1 .
5
6 CURRENT APPLICATION DATA:
7 APPLICATION NUMBER: US/08/834,033A
8 FILING DATE: 11-APR-1997
9 CLASSIFICATION: 800
10
11 ATTORNEY/AGENT INFORMATION:
12 NAME: WARD, MICHAEL R.
13 REGISTRATION NUMBER: 36,651
14 REFERENCE/DOCKET NUMBER: CGAB-300.USA
15
16 TELECOMMUNICATION INFORMATION:
17 TELEPHONE: (415) 433-4150
18 TELEFAX: (415) 433-8716
19
20 TELEX: N/A
21
22 INFORMATION FOR SEQ ID NO: 11:
23 SEQUENCE CHARACTERISTICS:
24 LENGTH: 87 amino acids
25 TYPE: amino acid
26 STRANDEDNESS: not relevant
27 TOPOLOGY: linear
28
29 MOLECULE TYPE: peptide
30
31 US-08-834-033A-11

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Query Match	17.1%;	Score 412;	DB 3;	Length 87;	
Best Local Similarity	90.0%;	Pred. 0.15e-33;			
Matches	72;	Conservative	3;	Mismatches	5;
				Indels	0;
				Gaps	0;
OY	364	TRNNWTSPTDLMGSLNTOIEHHNLPMPRCNINACQKYVKECKRNNNPLYVDYFOS	423		
Db	8	TRNNWTSPTDLMGSLNTOIEHHNLPMPRCNINACQKYVKECKRNNNPLYVDYFOS	67		
OY	424	YAMNLOOLKMAEHHIOAKAA	443		
Db	68	YINLLOOLKMAELYOAKAA	87		

Search completed: August 31, 2002, 14:58:23  
Job time: 474 sec

